		Exploring the E	Extreme
		2009 Scier	
		Essential Knowledg	ge and Skills
Texas Science			
Grade K			
Activity/Lesson	State	Standards	
Finding the Center of			plan and conduct simple descriptive
Gravity Using Rulers	TX	SCI.K.2.B	investigations such as ways objects move;
			collect data and make observations using
			simple equipment such as hand lenses,
Finding the Center of			primary balances, and non-standard
Gravity Using Rulers	TX	SCI.K.2.C	measurement tools;
Finding the Center of			communicate observations with others about
Gravity Using Rulers	TX	SCI.K.2.E	simple descriptive investigations.
			observe and describe the location of an
Finding the Center of		2011/20	object in relation to another such as above,
Gravity Using Rulers	TX	SCI.K.6.C	below, behind, in front of, and beside; and
			observe and describe the ways that objects
			can move such as in a straight line, zigzag,
Finding the Center of		2011/27	up and down, back and forth, round and
Gravity Using Rulers	TX	SCI.K.6.D	round, and fast and slow.
		Exploring the E	
		2009 Scier	
T	T	Essential Knowledg	je and Skills
Texas Science			
Grade 1	Ctoto	Standards	
Activity/Lesson	State	Standards	
Finding the Center of			plan and conduct simple descriptive
Gravity Using Rulers	TX	SCI.1.2.B	investigations such as ways objects move;
Gravity Osing Rulers	17	301.1.2.0	collect data and make observations using
			simple equipment such as hand lenses,
Finding the Center of			primary balances, and non-standard
Gravity Using Rulers		SCI.1.2.C	measurement tools;
Cravity Carry Rulers		301.1.2.0	communicate observations and provide
			reasons for explanations using student-
Finding the Center of			generated data from simple descriptive
Gravity Using Rulers		SCI.1.2.E	investigations.
Oravity Osing Maiors	17	001.1.2.L	investigations.
Finding the Center of			make predictions based on observable
Gravity Using Rulers		SCI.1.3.B	patterns;
Cravity Comig Maiers	17	001.1.0.0	pattorno,
Finding the Center of			measure and compare organisms and
Gravity Using Rulers		SCI.1.4.B	objects using non-standard units.
Cravity Comig Raiers	17	001.1.4.0	demonstrate and record the ways that
			objects can move such as in a straight line,
Finding the Center of			zig zag, up and down, back and forth, round
Gravity Using Rulers		SCI.1.6.D	and round, and fast and slow.
Cravity Coming Maiors		501.1.0.0	and round, and last and slow.

		Exploring the E	Extreme
		2009 Scier	
	Es	sential Knowledg	ge and Skills
Texas Science			
Grade 2			
Activity/Lesson	State	Standards	
			collect data from observations using simple
			equipment such as hand lenses, primary
Finding the Center of			balances, thermometers, and non-standard
Gravity Using Rulers	TX	SCI.2.2.C	measurement tools;
			communicate observations and justify
Finding the Center of			explanations using student-generated data
Gravity Using Rulers	TX	SCI.2.2.E	from simple descriptive investigations; and
Finding the Center of			make predictions based on observable
Gravity Using Rulers	TX	SCI.2.3.B	patterns;
		Exploring the E	
	F-	2009 Scier	
Tayaa Calanaa	ES:	sential Knowledg	je and Skills
Texas Science Grade 3			
Activity/Lesson	State	Standards	
Activity/Lesson	State	Statiuatus	plan and implement descriptive
			investigations, including asking and
			answering questions, making inferences,
			and selecting and using equipment or
Finding the Center of			technology needed, to solve a specific
Gravity Using Rulers		SCI.3.2.A	problem in the natural world;
Oravity Osing Maiors	17	001.3.Z.A	collect data by observing and measuring
			using the metric system and recognize
Finding the Center of			differences between observed and
Gravity Using Rulers		SCI.3.2.B	measured data;
Oravity Coming Telloro	17	001.0.Z.D	plan and implement descriptive
			investigations, including asking and
			answering questions, making inferences,
Finding the Center of			and selecting and using equipment or
Gravity Using Plumb			technology needed, to solve a specific
Lines	TX	SCI.3.2.A	problem in the natural world;
	-		collect data by observing and measuring
Finding the Center of			using the metric system and recognize
Gravity Using Plumb			differences between observed and
Lines	TX	SCI.3.2.B	measured data;
Finding the Center of			analyze and interpret patterns in data to
Gravity Using Plumb			construct reasonable explanations based on
Lines	TX	SCI.3.2.D	evidence from investigations;
			collect data by observing and measuring
Changing the Center			using the metric system and recognize
~ ~			differences between observed and
of Gravity Using			differences between observed and

			construct maps, graphic organizers, simple
Changing the Center			tables, charts, and bar graphs using tools
of Gravity Using			and current technology to organize, examine,
Moment Arms	тх	SCI.3.2.C	and evaluate measured data;
Changing the Center	174	001101210	communicate valid conclusions supported by
of Gravity Using			data in writing, by drawing pictures, and
Moment Arms	тх	SCI.3.2.F	through verbal discussion.
INOMOTIC / WITHO		001.0.2.1	undagn vorsal alcoaddion.
Changing the Center			connect grade-level appropriate science
of Gravity Using			concepts with the history of science, science
Moment Arms	TX	SCI.3.3.D	careers, and contributions of scientists.
		Exploring the E	
	Fee	2009 Scier ential Knowledg	
Texas Science	£35	ential Milowieug	ge and orino
Grade 4			
Activity/Lesson	State	Standards	
			plan and implement descriptive
			investigations, including asking well-defined
			questions, making inferences, and selecting
Finding the Center of			and using appropriate equipment or
Gravity Using Rulers	TX	SCI.4.2.A	technology to answer his/her questions;
, ,			collect and record data by observing and
			measuring, using the metric system, and
			using descriptive words and numerals such
Finding the Center of			as labeled drawings, writing, and concept
Gravity Using Rulers	TX	SCI.4.2.B	maps;
Finalization of			
Finding the Center of		001.405	communicate valid, oral, and written results
Gravity Using Rulers	TX	SCI.4.2.F	supported by data.
			plan and implement descriptive
E' a l' a a da a O a a ta a a t			investigations, including asking well-defined
Finding the Center of			questions, making inferences, and selecting
Gravity Using Plumb	T.V.	001.40.4	and using appropriate equipment or
Lines	TX	SCI.4.2.A	technology to answer his/her questions;
Finding the Center of			analyze data and interpret patterns to
Gravity Using Plumb	T) (001 4 0 5	construct reasonable explanations from data
Lines	TX	SCI.4.2.D	that can be observed and measured;
			plan and implement descriptive
			investigations, including asking well-defined
Changing the Center			questions, making inferences, and selecting
of Gravity Using			and using appropriate equipment or
Moment Arms	TX	SCI.4.2.A	technology to answer his/her questions;
			collect and record data by observing and
			measuring, using the metric system, and
Changing the Center			using descriptive words and numerals such
of Gravity Using			as labeled drawings, writing, and concept
Moment Arms	TX	SCI.4.2.B	maps;

Changing the Center			construct simple tables, charts, bar graphs,
of Gravity Using			and maps using tools and current technology
Moment Arms	TX	SCI.4.2.C	to organize, examine, and evaluate data;
Changing the Center			, , ,
of Gravity Using			communicate valid, oral, and written results
Moment Arms	TX	SCI.4.2.F	supported by data.
			draw inferences and evaluate accuracy of
Changing the Center			services and product claims found in
of Gravity Using			advertisements and labels such as for toys,
Moment Arms	TX	SCI.4.3.B	food, and sunscreen;
		Exploring the I	
		2009 Scie	
		Essential Knowledge	ge and Skills
Texas Science			
Grade 5			
Activity/Lesson	State	Standards	
			describe, plan, and implement simple
		201724	experimental investigations testing one
Jet Propulsion	TX	SCI.5.2.A	variable;
	T)(001500	collect information by detailed observations
Jet Propulsion	TX	SCI.5.2.C	and accurate measuring;
			describe, plan, and implement simple
Markada	T)/	001504	experimental investigations testing one
Vectoring	TX	SCI.5.2.A	variable;
			ask well-defined questions, formulate
Markanin n	TV	001 5 0 D	testable hypotheses, and select and use
Vectoring	TX	SCI.5.2.B	appropriate equipment and technology;
Markanin n	TV	001500	collect information by detailed observations
Vectoring	TX	SCI.5.2.C	and accurate measuring;
			analyze and interpret information to construct
			reasonable explanations from direct
Vectoring	TX	SCI.5.2.D	(observable) and indirect (inferred) evidence;
Center of Gravity,	174	001.0.2.0	collect information by detailed observations
Pitch, Yaw	TX	SCI.5.2.C	and accurate measuring;
,		555.2.0	draw or develop a model that represents how
			something works or looks that cannot be
Center of Gravity,			seen such as how a soda dispensing
Pitch, Yaw	TX	SCI.5.3.C	machine works
,			
	1	Exploring the l	Extreme
		2009 Scien	
		Essential Knowled	ge and Skills
Texas Science			
Grade 6			
Activity/Lesson	State	Standards	

	1		
Grade 7			
Texas Science		Essential Knowled	ye anu okino
		2009 Scie	
	ı	Exploring the	
Pitch, Yaw	TX	SCI.6.8.D	measure and graph changes in motion
Center of Gravity,			
Pitch, Yaw	TX	SCI.6.8.C	time measurements;
Center of Gravity,			calculate average speed using distance and
Pitch, Yaw	TX	SCI.6.8.B	upon by unbalanced forces;
Center of Gravity,			direction, and speed of an object when acted
<u> </u>			identify and describe the changes in position,
Vectoring	TX	SCI.6.8.C	time measurements;
3			calculate average speed using distance and
Vectoring	TX	SCI.6.8.B	direction, and speed of an object when acted upon by unbalanced forces;
			identify and describe the changes in position,
Vectoring	TX	SCI.6.2.C	writing, and graphic organizers;
			qualitative means such as labeled drawings,
			International System of Units (SI) and
			collect and record data using the
Vectoring	TX	SCI.6.2.B	equipment and technology;
			testable hypotheses, and using appropriate
			asking well-defined questions, formulating
			investigations by making observations,
			design and implement experimental
Vectoring	TX	SCI.6.2.A	technology;
			and using appropriate equipment and
			observations, asking well-defined questions,
			descriptive investigations by making
			plan and implement comparative and
Jet Propulsion	TX	SCI.6.8.D	measure and graph changes in motion
Jet Propulsion	TX	SCI.6.2.C	writing, and graphic organizers;
			qualitative means such as labeled drawings,
			International System of Units (SI) and
•			collect and record data using the
Jet Propulsion	TX	SCI.6.2.B	equipment and technology;
			testable hypotheses, and using appropriate
			asking well-defined questions, formulating
			investigations by making observations,
			design and implement experimental
Jet Propulsion	TX	SCI.6.2.A	technology;
			and using appropriate equipment and
			observations, asking well-defined questions,
			plan and implement comparative and descriptive investigations by making

			plan and implement comparative and
			plan and implement comparative and
			descriptive investigations by making
			observations, asking well-defined questions,
			and using appropriate equipment and
Jet Propulsion	TX	SCI.7.2.A	technology;
			design and implement experimental
			investigations by making observations,
			asking well-defined questions, formulating
			testable hypotheses, and using appropriate
Jet Propulsion	TX	SCI.7.2.B	equipment and technology;
			collect and record data using the
			International System of Units (SI) and
			qualitative means such as labeled drawings,
Jet Propulsion	TX	SCI.7.2.C	writing, and graphic organizers;
			plan and implement comparative and
			descriptive investigations by making
			observations, asking well-defined questions,
			and using appropriate equipment and
Vectoring	TX	SCI.7.2.A	technology;
			design and implement experimental
			investigations by making observations,
			asking well-defined questions, formulating
			testable hypotheses, and using appropriate
Vectoring	TX	SCI.7.2.B	equipment and technology;
-			collect and record data using the
			International System of Units (SI) and
			qualitative means such as labeled drawings,
Vectoring	TX	SCI.7.2.C	writing, and graphic organizers;
			construct tables and graphs, using repeated
			trials and means, to organize data and
Fuel Efficiency	TX	SCI.7.2.D	identify patterns
		Exploring the E	
		2009 Scier	
		Essential Knowledg	ge and Skills
Texas Science			
Grade 8	0	0, 1, 1	
Activity/Lesson	State	Standards	
			plan and implement comparative and
			descriptive investigations by making
			observations, asking well-defined questions,
l .	T.V.	00105	and using appropriate equipment and
Jet Propulsion	TX	SCI.8.2.A	technology;
			design and implement comparative and
			experimental investigations by making
			observations, asking well-defined questions,
l .		00:	formulating testable hypotheses, and using
Jet Propulsion	TX	SCI.8.2.B	appropriate equipment and technology;

			collect and record data using the
			International System of Units (SI) and
			qualitative means such as labeled drawings,
Jet Propulsion	TX	SCI.8.2.C	writing, and graphic organizers;
			describe the historical development of
Jet Propulsion	TX	SCI.8.9.A	evidence that supports plate tectonic theory;
			plan and implement comparative and
			descriptive investigations by making
			observations, asking well-defined questions,
			and using appropriate equipment and
Vectoring	TX	SCI.8.2.A	technology;
			design and implement comparative and
			experimental investigations by making
			observations, asking well-defined questions,
			formulating testable hypotheses, and using
Vectoring	TX	SCI.8.2.B	appropriate equipment and technology;
			collect and record data using the
			International System of Units (SI) and
			qualitative means such as labeled drawings,
Vectoring	TX	SCI.8.2.C	writing, and graphic organizers;
			construct tables and graphs, using repeated
			trials and means, to organize data and
Fuel Efficiency	TX	SCI.8.2.D	identify patterns